Rhodora

JOURNAL OF THE

NEW ENGLAND BOTANICAL CLUB.

Conducted and published for the Club, by

BENJAMIN LINCOLN ROBINSON Editor-in-chief.

FRANK SHIPLEY COLLINS
MERRITT LYNDON FERNALD } Associate Editors.
HOLLIS WEBSTER

WILLIAM PENN RICH
EDWARD LOTHROP RAND } Publication Committee.

Vol. 6. May, 1904. No. 65.

CONTENTS:

Casual Elements in the Flora of Maine. *J. C. Parlin* . . 81
Lists of New England Plants.—XV. *A. S. Pease* . . . 85
Verbena stricta and Helianthus mollis in Mass. *S. N. F. Sanford* 88
Notes on the Polygamy of Chionanthus. *E. J. Hill* . . 89
Noteworthy Plants of New Haven. *R. W. Woodward* . . . 89
Stellaria glauca in the Province of Quebec. *B. L. Robinson* . 90
Plants new to the Flora of Maine. *O. W. Knight* . . . 91
Notes on Equisetum pratense. *A. A. Eaton* 92

Boston, Mass.
740 Exchange Building.

Providence, R. I.
Preston and Rounds Co.

Printed by Edward W. Wheeler, Cambridge, Mass.

RHODORA.—A monthly journal of botany, devoted primarily to the flora of New England. Price $1.00 per year ($1.25 to all foreign countries except Canada); single copies 15 cents. Volume 1, $1.50. All remittances by check or draft, except on Boston or New York, must include ten cents additional for cost of collection. Notes and short scientific papers, relating directly or indirectly to the plants of the northeastern states, will be gladly received and published to the extent that the limited space of the journal permits. Forms will be closed five weeks in advance of publication. Authors (of more than one page of print) will receive 25 copies of the issue in which their contributions appear. Extracted reprints, if ordered in advance, will be furnished at cost.

Address manuscripts and proofs to
B. L. ROBINSON, 3 Clement Circle, Cambridge, Mass.

Subscriptions, advertisements, and business communications to
W. P. RICH, 300 Massachusetts Avenue, Boston, Mass.

Single copies may be had from
E. L. RAND, Corresponding Sec'y N. E. Botanical Club,
740 Exchange Building, Boston, Mass.

Entered at Boston, Mass., Post office as Second Class Mail Matter

FLORA OF THE SOUTHEASTERN UNITED STATES. Just issued! By JOHN K. SMALL, Ph. D. Being descriptions of the Flowering and Fern-Plants growing naturally in North Carolina, South Carolina, Georgia, Florida, Tennessee, Alabama, Mississippi, Arkansas, Louisiana and The Indian Territory, and in Oklahoma and Texas east of the one hundredth Meridian, with analytical keys to the Orders, Families, Genera and Species.

Large octavo, pp. x + 1370. Price $3.60.

Subscriptions may be sent to DR. JOHN K. SMALL, Bedford Park, New York City.

MOSSES with Hand-Lens and Microscope. PART II NOW READY. 80 pp. quarto. Dicranaceae to Encalyptaceae. 25 full page plates. 50 cuts in the text. The Hand-Lens characters are fully emphasized so that these alone are often sufficient to determine the plant and in addition the MICROSCOPIC CHARACTERS are treated in the same untechnical manner. Part I contains a complete TEXT BOOK on Mosses and a systematic treatment of the families part way through the Dicranaceae. Price $1.00, per part, post-paid. Sample pages free.

A. J. GROUT, PH. D., 360 LENOX ROAD, BROOKLYN, N. Y.

HARDY NATIVE AMERICAN PLANTS

and Carolina Mountain Flowers. Many new rare and local varieties.

HARLAN P. KELSEY, Landscape Architect,
Prop. Highlands Nursery, Kawana, North Carolina. Catalogues.
Tremont Building, Boston.

Consultation and plans for improvement of estates, private and public grounds, suburban properties and resorts.

GROUT

MOSSES WITH A HAND-LENS. Seventy-five pages, $1.10 net, post-paid.

MOSSES WITH A HAND-LENS AND MICROSCOPE. Part I. 86 pages. $1.00 net, post-paid. Sample pages on application.

O. T. LOUIS, 59 FIFTH AVENUE, NEW YORK CITY.

Advertisements of Nurserymen and Dealers in Botanical and other Scientific Publications are inserted in these pages at the following rates per space of 4 in. by 3-4 in. 1 year $4.00, 6 months $2.50.

Rhodora

JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

Vol. 6 May, 1904 No. 65

SOME CASUAL ELEMENTS IN THE FLORA OF WESTERN MAINE.

J. C. Parlin.

Any lover of plants, one who is looking for species new to his experience, should, if resident near a woolen mill, carefully watch the waste-heap for species native in those regions forming the source of the wool supply.

For thirteen years, I have had the pleasure of studying the flora of the waste-heap of the North Berwick Manufacturing Company's plant, during which time the factory has used wool from Arizona, California, New Mexico, Texas, Colorado, Utah, Idaho, Oregon, the Middle West, and, in 1892, a few pounds from Australia.

Not many of the "sheep ticks" have adapted themselves to our soil and climate. Perhaps the treatment and use of the wool-waste will somewhat explain this. The waste is heaped into a natural hollow, the outlet of which is closed; for several years, it there collects moisture, is mixed with night-soil, rots, and is finally carted away to form a compost heap before being used for a fertilizer. *Atriplex patulum*, L., var. *littorale*, Gray, *Medicago lupulina*, L., and *Erodium moschatum*, Willd., are the only species seeming to have been introduced in the wool that are at all permanently located here. The first is abundant in waste ground around the storehouses of the factory; the medick is well established in the surrounding grassland; while the heron's-bill is occasionally found around the buildings and along the river-bank below the mill. *Madia glomerata*, Hook., *Hymenatherum aureum*, Gray, *Erodium circutarium*, L'Hér., and *Helenium nudiflorum*, Nutt., have occurred along the river, the last species remaining several years in grassland, but have

shown no signs of becoming permanent. The Helenium has not been found near the waste-heap, and may have been introduced in grass seed; but I have inclined to the wool theory, because the plants were all found along the line of the principal current when the river is high enough to overflow the intervales below the mill.

Taken as a whole, the list does not present many plants of a character, in this latitude, to worry the farmer with the fear of new weeds.

For the identification of the majority of the species, I am indebted to Merritt L. Fernald. Thanks are also due Dr. B. L. Robinson, Dr. J. M. Greenman and Prof. F. Lamson Scribner, for their kind assistance in the work of identification.

Plants introduced in wool-waste at North Berwick, Me.

Senebiera pinnatifida, DC.
Erodium cicutarium, L'Hér.
E. moschatum, Willd.
E. Botrys, Bertolini.
Medicago lupulina, L.
M. arabica, All. (*M. maculata*, Willd.).
M. hispida, Gaertn. (*M. denticulata*, Willd.).
M. laciniata, All.
Glycyrrhiza lepidota, Nutt.
Aplopappus gracilis, Gray.
Artemisia annua, L.
A. Ludoviciana, Nutt.
Aster frondosus, Torr. & Gray.
Bidens aristosa, Britton (*Coreopsis*, Michx.).
Cosmos parviflorus, HBK.
Cotula australis, Hook. f.
Dysodia chrysanthemoides, Lag.
Helenium nudiflorum, Nutt.
Heterospermum pinnatum, Cav.
Hymenatherum aureum, Gray.
Madia glomerata, Hook.
Verbesina encelioides, B. & H.
Xanthium Canadense, Mill.
X. spinosum, L.
X. strumarium, L.
Echinospermum Lappula, Lehm.
E. Redowskii, Lehm., var. *occidentale*, Wats.
Veronica peregrina, L.
Marrubium vulgare, L.
Amaranthus retroflexus, L.
A. hybridus, L.
A. graecizans, L. (*A. albus*, L.).
Atriplex patulum, L., var. *littorale*, Gray.
Atriplex patulum, L., var. *hastatum*, Gray.
Chenopodium leptophyllum, Nutt.
C. olidum, Watson.
C. album, L., var. *viride*, Moq.
Monolepis chenopodioides, Moq.
M. trifida, Schrad.
Cenchrus tribuloides, L.
Tragus racemosus, Hall.
Sporobolus interruptus, Vasey.
S. cryptandrus, Gray.
S. cryptandrus, Gray, var. *strictus*, Scribn.
Polypogon Monspeliensis, Desf.
Deschampsia elongata, Munro.
Chloris cucullata, Bisch.
C. elegans, HBK.
Lycurus phleoides, HBK.
Bouteloua Humboldtiana, Griseb.
B. prostrata, Lag.
B. oligostachya, Torr.
B. uniflora, Vasey.
Eragrostis major, Host.
E. Neo-mexicanus, Vasey.

Poa tenuifolia, Buckl.
Puccinellia airoides; Nutt.
Festuca Myurus, L.
F. tenella, Willd.
Bromus marginatus, Nees (*B. breviaristatus*, Auct.).
B. carinatus, H. & A.
B. secalinus, L.
B. mollis, L.
B. racemosus, L.
B. racemosus, L., var. *commutatus*, Hook. f.
B. tectorum, L.
Hordeum jubatum, L.
H. pratense, Huds.
Elymus Sitanion, Schultes.

Many other species have grown on the waste-heap, but have not attained sufficient maturity to afford me any help to their identification; probably an expert could have recognized many of them.

Another species that has evidently come to stay is *Chenopodium foetidum*, Schrad. Its introduction may have been through the medium of the wool-waste, or in grass-seed. In the fall of 1900, the intervale where it has occurred was "broken up" and seeded; during the winter and spring of 1901, several heavy rains caused the river to overflow the peninsula formed by the lower end of the intervale, the top soil of which was scraped away by the ice, which was driven across it, instead of being carried around in the channel of the river. Hardly anything besides *Barbarea vulgaris*, R. Br., and *Asclepias Cornuti*, Dec., appeared that season, the ground lying fallow throughout the year. In the spring of 1902, the field was plowed, remanured (by which means the seed may have been brought in, the dressing coming partly from a stable where baled hay had been fed) and planted to potatoes and corn. In August and September of this year, I found a considerable quantity of the Chenopodium among the potatoes, but none among the corn. In 1903, the field was planted to the same crops, and the weed was abundant in all parts of the field. I would suggest that some appreciative botanist change the specific name from *foetidum* to *fragrans*, as I consider the odor pleasing.

Newly seeded fields, especially those seeded without grain in the fall, have always been among my favorite hunting grounds. In one, about ten years ago, I found *Berteroa incana*, DC., *Camelina microcarpa*, Andrz., *Sisymbrium altissimum*, L., *Thlaspi arvense*, L., *Viola arvensis*, Murr., *Silene Cucubalus*, Wibel., *S. noctiflora*, L., *S. dichotoma*, Ehrh., *Stellaria graminea*, L., *Medicago sativa*, L., *Melilotus alba*, Desr., *M. officinalis*, Lam. *Heliopsis scabra*, Dunal., *Echium vulgare*, L., *Narcissus poeticus*, L., and *Ornithogalum umbellatum*, L., the last two being, of course, garden escapes. The greater number of these have fallen asleep, but Heliopsis, Narcissus and Ornithogalum remain unto this day.

In 1902, another field of fall-seeding gave me the following species: — *Ranunculus micranthus*, Nutt., *Arabis perfoliata*, Lam., *Barbarea stricta*, Andrz., *Brassica juncea*, Cosson, *Camelina microcarpa*, Andrz., *Cardamine parviflora*, L., *Erysimum cheiranthoides*, L., *Sisymbrium canescens*, Nutt., *S. Sophia*, L., *Arenaria serpyllifolia*, L., *Saponaria Vaccaria*, L., *Silene antirrhina*, L., a form somewhat pubescent and with flowers fully open after sunset! *Erodium cicutarium*, L'Hér., *E. moschatum*, Willd., *Lotus arabicus*, L.?, *Artemisia Ludoviciana*, Nutt., *Specularia perfoliata*, A. DC., *Gilia linearis*, Gray, *Echinospermum Redowskii*, Lehm., var. *occidentale*, Watson, *Myosotis verna*, Nutt., *Veronica arvensis*, L., *V. peregrina*, L., *Marrubium vulgare*, L., *Plantago Purshii*, R. & S. (*P. gnaphaloides*, Nutt.), *Apera Spica-venti*, Beauv., *Bromus marginatus*, Nees. As this field is on an intervale below the woolen factory and is overflowed every year, some of the above list were probably deposited there in waste that was washed down in a period of high water.

Eleven years ago, a pickle factory in this village was demolished and the brine in the vats was turned upon the ground, thereby saturating the soil with salt. In 1898 there sprang up a dense carpet of *Spergularia salina*, J. & C. Presl., with a border of a bushy form of *Polygonum aviculare*, L., and a colony of three plants of *Heliotropium Curassavicum*, L.!

While teaching at Rumford Center, Me., fifteen years ago, I was greatly interested in the circumstances attending the appearance and disappearance of *Euphorbia glyptosperma*, Engel. At that time there was a steam saw-mill on the outskirts of the village, and the method of moving logs from the yard to the slip was by hitching a chain around one end of a log and "snaking" it, as they aptly called the performance, to its destination. This kind of work tore up the sod, making furrow-like places all over the yard. During the summer, in these furrows, grew a profusion of the Euphorbia; the next year none could be found. Whence came it? Whither did it go?

NORTH BERWICK, MAINE.

PRELIMINARY LISTS OF NEW ENGLAND PLANTS,— XV.[1]

ARTHUR STANLEY PEASE.

[The sign + indicates that an herbarium specimen has been seen; the sign — that a reliable printed record has been found.]

SAURURACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Saururus cernuus, L.					+	+

LORANTHACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Arceuthobium pusillum, Peck.	+	+	+	+		+

LAURACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Lindera Benzoin, Blume.	+	+	+	+	+	+
Sassafras officinale, Nees.	+	+	+	+	+	+

EUPHORBIACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Acalypha gracilens, Gray		+		+	+	+
" virginica, L.	+	+	+	+	+	+
Euphorbia corollata, L.	+		+	+		+
" Cyparissias, L.	+	+	+	+	+	+
" Esula, L.	+	+		+		+
" glyptosperma, Engelm.	+					
" Helioscopia, L.	+	+	+	+		
" hirsuta, Wiegand.	+	+	+	+	+	+
" Ipecacuanhae, L.						+
" maculata, L.	+	+	+	+	+	+

[1] Printed in RHODORA as supplementary material.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Euphorbia Peplus, L.	+	+	+	+	+	
" platyphylla, L.			+			
" polygonifolia, L.	+	+		+	+	+
" Preslii, Guss.			+	+	+	+
Mercurialis annua, L.	+			+		
Ricinus communis, L.				+		

THYMELAEACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Daphne Mezereum, L.			+	+	+	
Dirca palustris, L.	+	+	+	+	—	+

ELAEAGNACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Shepherdia canadensis, Nutt.	+		+			

NOTES ON THE ABOVE LIST.

Saururus cernuus, L. was found on July 29, 1903, by B. Cook, Jr. and S. N. F. Sanford at Adamsville, Rhode Island, but a few miles from the Massachusetts line (see RHODORA, vi. 77). It should be looked for, therefore, in the latter State.

That *Arceuthobium pusillum*, Peck has as yet not been reported from Rhode Island is doubtless due to the scarcity in that State of one of its commonest hosts, *Picea nigra*, Link. A careful search, however, of the trees recorded in RHODORA VI, 41–42 will perhaps reveal this interesting parasite which is probably well distributed through much of New England.

Croton capitatus, Michx. is represented by a sheet in the herbarium of the New England Botanical Club collected in South Boston, Massachusetts, in 1879. The name of the collector is not given.

Croton texensis, Muell. was found by Dr. C. W. Swan on a dump in the Back Bay, Boston, in 1890. This and the preceding species seem too fugitive to be included in the list above.

Euphorbia glyptosperma, Engelm. is to be expected from Con-

necticut, for it has been found on Fisher's Island, New York, only four or five miles from the Connecticut shore. Dr. J. K. Small informs me that the citation of this plant from Connecticut in Britton's Manual, p. 592, has reference to specimens from the Fisher's Island station.

Euphorbia Ipecacuanhae, L. In the John A. Lowell Herbarium at the Boston Society of Natural History there is an undated specimen of this plant collected at Enfield, Connecticut, by Dr. M. M. Reed. A letter discovered by Mr. C. H. Bissell and kindly communicated by him to me has shown that Dr. Reed was a friend of Dr. J. W. Robbins of Uxbridge, Massachusetts. An undated specimen of this plant, collected in Enfield, by Robbins, is in the herbarium of Mr. J. N. Bishop at Plainville, Connecticut, but no specimen of it has as yet come to light in the herbarium of Robbins, part of which is at Mt. Holyoke College and part at South Natick, Massachusetts. It is probable that the specimens gathered by Dr. Reed and Dr. Robbins date from between 1824 and 1830.

Euphorbia platyphylla, L., collected on a dump at Cambridge, Massachusetts, by Mr. Walter Deane on October 10, 1885, has not reappeared and can hardly be included in the list above.

Euphorbia Preslii, Guss. The report of this species by Professor Jesup in his list of plants near Dartmouth College, New Hampshire, was probably based on the plant which is now known as *E. hirsuta*, Wiegand. Professor Lyman of Dartmouth College writes me that the only specimen of true *Euphorbia Preslii* in Professor Jesup's herbarium comes from Massachusetts.

Two western species of Euphorbia which are not sufficiently permanent to be included in the list above should be put on record here. *Euphorbia prostrata*, Ait., gathered on cotton-waste at Malden, Massachusetts, Sept. 20, 1890, by Mr. F. S. Collins, is now in the herbarium of the New England Botanical Club. A small scrap of *E. serpens*, HBK. is in the herbarium of Brown University. It was gathered at Gilmanton, New Hampshire, August, 1871, by Rev. Joseph Blake.

Mercurialis annua, L. has been gathered on wharves in Bangor, Maine, in 1903, by Mr. O. W. Knight, and at East Somerville, Massachusetts, in the same year, by Mr. A. H. Moore and the writer. It has been known in New England, however, for a much longer time, since of two sheets of it in the herbarium of the Boston

Society of Natural History, collected in Boston, at least one (and probably both), cannot have been gathered later than 1868.

Ricinus communis, L. I have with some hesitation included in my list. It has been collected in two successive years, however, at Dedham, Massachusetts, by Mr. E. F. Williams.

A plant labelled "*Shepherdia argentea*, Roxbury, Massachusetts, 1849, [J. A.] Lowell," in the Boston Society of Natural History herbarium cannot represent a native of our range.

Shepherdia canadensis, Nutt. may perhaps be sought in Coös County, New Hampshire, since it is found in Madison, Maine, and in Vermont. The Vermont stations, however, are in the western part of the State.

ANDOVER, MASSACHUSETTS.

THE OCCURRENCE OF VERBENA STRICTA AND HELIANTHUS MOLLIS IN MASSACHUSETTS.— On Aug. 2d, 1903, Dr. B. J. Handy and the writer were botanizing in some fields on the outskirts of Fall River. At the edge of an excavation in a bank of glacial till a plant was seen which had the characteristic appearance of Verbena, but the larger blue flowers and the coarseness of the plant showed at a glance that it was not *Verbena hastata*, L. common in this region. Upon analysis it proved to be *Verbena stricta*, Vent. About a dozen plants were observed growing among the stones and coarse soil in the pit.

As we continued our walk in an adjoining field another group of unfamiliar plants, in full flower, attracted our attention. This colony was more extensive, there being some fifty plants, which proved to be *Helianthus mollis*, Lam. As no station in New England is mentioned in any of the standard manuals of botany, both plants being native of the West and South, inquiry was made at the Gray Herbarium, and a search of the available literature brought to light but two New England records of *Verbena stricta*, namely from Bridgeport and Manchester, Connecticut (recorded in Bishop's Catalogue of Connecticut Plants), while *Helianthus mollis* does not appear to be recorded in New England at all.

The fields in which these plants were found are very close to a large cotton mill, and it is probable that the seeds of both species were brought North in the raw cotton and thrown into the fields with

the waste material from the mill. In the case of *Helianthus mollis*, it is probable, judging from the less bunched position of the plants, that the cotton waste containing the seeds was spread on the field as a fertilizer, a not uncommon practice. — S. N. F. Sanford, Fall River, Massachusetts.

Note on the Polygamy of Chionanthus.— In the article of Mr. Rehder in Rhodora (6 : 18, 1904), concerning the polygamy of the flowers of *Chionanthus Virginica*, there is reference to a statement of Thomas Meehan that it is mentioned in the later edition of Gray's Manual, which Mr. Rehder has failed to verify, Mr. Meehan evidently referred to what is found in a brief characterization of *Chionanthus* among the tribal divisions of *Oleaceae* in the sixth edition, p. 335. It is said of the genus: "Flowers complete, sometimes polygamous." Such a character might be construed as a general one and be referred to the genus as including *C. retusa*. But it is not the custom of the book, designed to help students of the flora to a safe knowledge of what they may expect to find in the area it covers, to put in needless statements. Then this habit of the plants had not been given in former editions where the tribal divisions are also characterized, and the inference from this would be that the polygamy was that of *C. virginica*, the only one of the genus described. The statement not being placed in the full description of the genus or species is easily overlooked.— E. J. Hill, Chicago, Illinois.

Two noteworthy Plants of New Haven, Connecticut.— *Phaseolus perennis*, Walt. was collected by the writer, in flower, on August 18th, 1903, and later in good fruit, in the woods skirting the base of East Rock, New Haven. It makes a vigorous growth here, and the vines cover the low ledges over which they climb. The station is only a few rods from the edge of a salt marsh, and at a slight elevation above it. In Rhodora II : 92, April, 1900, Hon. J. R. Churchill discusses the occurrence of *Phaseolus perennis* in New England, and states that the record for New England rested at that time solely on three specimens all collected more than forty years before at New Haven, Conn. He could find no other New England specimens of the species in our principal herbaria, nor any botanist

who had seen it within our area and inferred that it had disappeared from our flora. It seems probable that the station reported by the present writer is the one from which the New Haven specimens referred to were taken so many years ago, and which had become forgotten. Since Judge Churchill's article was published, Mr. C. H. Bissell has discovered this Phaseolus in Norwalk, Connecticut (Rhodora iv: 13) and Mr. E. B. Harger has reported it from Huntington (Rhodora v: 291). The nearest of these two stations is some ten miles from New Haven and it is not likely that either of them can have been the source of the specimens referred to by Judge Churchill.

On August 3d, 1903, the writer noticed by the roadside on the outskirts of New Haven an unfamiliar grass in full bloom, which proved to be *Molinia coerulea*, Moench. This grass was afterwards found at several places within a mile of the first station, and apparently well established at each place. It continued to flower for several weeks, and is a stately and handsome species.— R. W. Woodward, New Haven, Connecticut.

Stellaria glauca established in the Province of Quebec.— Among several plants of interest, recently received at the Gray Herbarium from Judge J. R. Churchill, is the European *Stellaria glauca*, Withering. It was collected on the railway which runs from Quebec along the north bank of the St. Lawrence River to Ste. Anne de Beaupré. It was observed at several points along the line, but in particular abundance near a small flag-station about three miles west of Ste. Anne de Beaupré where it was thoroughly established. The species shares the general habit of *S. longifolia*, Muhl., *S. longipes*, Goldie, and *S. graminea*, L., and as it is likely to be found at other American localities, it may be worth while to mention its distinctive features. It is for the genus tall and slender (3 to 5 dm. in height), entirely glabrous and pale green. The leaves are linear and very acute, 2 to 3.5 cm. long and for the most part not over 2 mm. in breadth. At their bases where they are connate by narrow subscarious membranes they are entirely free from ciliation. The flowers are rather large, the petals being 8 to 12 mm. long. In *S. graminea*, *S. longifolia*, and *S. longipes* the petals are only 3 to 6 mm. in length. In the American forms of *S. graminea* and in *S. longifolia* the bases of the

leaves or the membranes connecting them appear always to show at least some vestiges of ciliation, while in S. longipes the leaves are neither so long nor relatively so narrow as they are in *S. glauca.* Since the receipt of the specimens from Judge Churchill, *S. glauca* from the same locality has been sent to the Gray Herbarium by Mr. John Murdock, Jr.— B. L. Robinson.

Some Plants new to the Flora of Maine.— In company with a fellow botanist, Mr. F. M. Billings, I went on an exploring trip September 7th, 1903, which proved a veritable red letter day in the botanical line for us both, as in addition to securing many plants which we knew to occur in the vicinity, though we had previously never personally collected them, we were fortunate enough to secure a few which could not be identified by a most rigorous search of the botanical literature at our command. Our usual resort in such cases is Mr. M. L. Fernald of the Gray Herbarium, and to him the puzzling specimens were sent for identification. A species of which Mr. Billings had secured a single specimen the year previous, growing in some ballast left by an Italian vessel, was found quite abundant in the same locality this season, and on the day in question we secured good specimens. Mr. Fernald pronounced this plant to be *Mercurialis annua* L. and reported that to his knowledge it had never before been recorded from Maine. On the side of a steep railroad embankment Mr. Billings discovered a low spreading prostrate plant which was then almost entirely out of bloom. It was quite abundant and seemed to have been established there for at least one season previously. Mr. Fernald pronounces this plant to be *Anchusa arvalis* Reichenbach, and he adds that it is apparently not recorded in America. On September 30th, Mr. Billings brought me specimens of a plant which Mr. Fernald pronounces to be *Galinsoga parviflora* var. *hispida* DC. These were growing in a waste spot where rubbish and other miscellaneous material was being constantly dumped and might easily have been introduced with material used in packing crockery ware, as such material consisting of straw and similar matter is dumped in this locality. September 30 and October 4th I collected specimens of a Valerian growing in waste places where it might easily have been introduced with refuse from gardens. Mr. Fernald pro-

nounces the species to be *Valerianella olitoria* Poll. This and allied species are sometimes cultivated under the name of "Corn Salad" in this vicinity.— ORA W. KNIGHT, Bangor, Maine.

NOTE ON EQUISETUM PRATENSE.— *Equisetum pratense*, Ehrh., appears to be very rare in the United States, although more common in Canada and Alaska. It has been reported from New England several times, but erroneously so far as my observations have gone. While attending the meetings of the Josselyn Society of Maine on July 2nd, I explored the south bank of "Old Point," Norridgewock. It is quite steep, perhaps 35 feet high, and made up of sand. Here I noticed a peculiar Equisetum and to my delight found it to be the much-wanted *E. pratense*. It grew down the south face of the bluff and on top among bushes and trees. Later in the day I found it, but sparingly, in a cedar swamp at Madison, which fact shows that its habitat is varied, and that it is presumably common in northern New England. It has been overlooked for the reason that in appearance it is half-way between *E. arvense* and *E. silvaticum*, so that casual observers are likely to take it for one or the other of these species. From the first it may be told, when growing in the sun, by the fact that the top is a little oblique as in *E. silvaticum* while the upper branches are deflexed and then horizontal. In shade it is more pyramidal than *E. arvense*, and the branches are finer. It can be told at once on examination of the stem, even without a lens, as *E. arvense* is smooth, while *E. pratense* is covered by tall, flattish spinules that often give it a gray tinge. It can also be easily separated from *E. silvaticum* by its simple branches, those of the latter species being always compound. *E. pratense* is, in general, a more nearly erect species, the stem usually being quite perpendicular, the oblique appearance where present being caused by the deflexed branches.— A. A. EATON, North Easton, Mass.

Vol. 6, no. 64, including pages 65 to 80 and plates 52 and 53, was issued 6 April, 1904.

BOTANICAL PUBLICATIONS

SYNOPTICAL FLORA OF NORTH AMERICA, by A. GRAY and others. Vol. I. Fascicles 1 and 2. A critical treatment of forty-five families of polypetalæ (*Ranunculaceæ to Polygalaceæ*) 1895-1897. $5.20.—GRAY HERBARIUM of Harvard University, Cambridge, Mass.

FLORA OF MT. DESERT ISLAND, MAINE, by EDWARD L. RAND and JOHN H. REDFIELD. With a Geological Introduction by WILLIAM MORRIS DAVIS. 1894. And a new map of the Island. 1901. Price $2.00, post free.—Address EDWARD L. RAND, 53 State Street, Boston, Mass.

NEW ENGLAND WILD FLOWERS AND THEIR SEASONS, by WILLIAM WHITMAN BAILLY. Price 75 cents net.—PRESTON & ROUNDS CO., Providence, R. I.

FERNS AND FERN ALLIES

The only magazine in the world devoted to these plants is **THE FERN BULLETIN, Binghamton, N. Y.** It contains the information that cannot be had from books and keeps your knowledge up to date. 75 cents a year. Send for sample. We offer sets from 1898 to end of 1904, complete, 812 pages for $4.50. Earlier numbers out of print.

GENERAL ADVERTISEMENTS.

HOME GROWN LILIES.

Fresh from Beds. Wild Flowers, Hardy plants of all kinds.
Send for catalogue.

F. H. HORSFORD, Charlotte, Vt.

CONCORD NURSERIES, Concord, Massachusetts. Established on Minot Pratt's Homestead by his son, F. G. PRATT. Over 300 species grown, including *Rhodora*, pink and white, Andromedas, Cornels, Viburnums, Kalmias, Ivy, Myrica, Benzoin, Hamamelis. E. Mass. plants collected. Catalogue.

THE JOURNAL OF THE MAINE ORNITHOLOGICAL SOCIETY. Now in its sixth volume. Be sure to get Vol. V and VI so as to get Mr. A. H. Norton's "Notes on the Finches Found in Maine." In the April number begins a series of articles on "The Warblers Found in Maine."

SUBSCRIPTION

50 cents annum. 15 cents per copy.

SEND STAMP FOR SAMPLE COPY.

J. MERTON SWAIN, Editor and Business Manager,
FAIRFIELD, MAINE.

A Model Botanical Text-Book

LEAVITT'S OUTLINES OF BOTANY, . . . $1.00
With Gray's Field, Forest and Garden Flora, . . 1.80
With Gray's Manual of Botany, ... 2.25

For the High School Laboratory and Class Room.

By ROBERT GREENLEAF LEAVITT, A. M., of the Ames Botanical Laboratory. Prepared at the request of the Botanical Department of Harvard University.

THE practical exercises and experiments have been so chosen that they may be performed by schools with even simple apparatus. The instructions for laboratory study are placed in divisions by themselves, preceding the related chapters of descriptive text. The book combines the best features of the newest methods with that lucidity and definiteness which have given Dr. Gray's text-books their extraordinary success. It pays special attention to ecology, but morphology and physiology are also fully treated. The illustrations number 384, and have been drawn with great care and accuracy. The appendix contains valuable suggestions for the teacher, and the index is very complete.

American Book Company

New York **Cincinnati** **Chicago** **Boston**

ALL ABOUT THE WILDFLOWERS.

The only American Magazine devoted to the publication of interesting items about the wildflowers is **THE AMERICAN BOTANIST.** It does not print technical articles and uses the common names if the plants have any. It will help you to become better acquainted with the plants of the world. Monthly, $1.00 a year. Sample for a 2-cent stamp.

Address **THE AMERICAN BOTANIST**, Binghamton, N. Y.

THE PLANT WORLD,

Established 1897.

An Illustrated Monthly Magazine devoted to Plants.

Send a two-cent stamp for a Sample Copy if you would like to know more about it. You can judge better, however, if you try a year's subscription for $1.50. We will make you feel satisfied.

The Plant World Company,
Box 334, Washington, D. C.

Mention "RHODORA."